



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,664	11/25/2003	Joseph Patrick Burke	040053	8086

23696 7590 09/11/2007
QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER

CHAN, RICHARD

ART UNIT	PAPER NUMBER
----------	--------------

2618

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

09/11/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No. 10/723,664	Applicant(s) BURKE ET AL.	
	Examiner Richard Chan	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/27/07 have been fully considered but they are not persuasive.

With respect to applicant's arguments regarding claims 1-16 and 22-28, applicant submits that the Leclercq reference does not disclose "synchronizing a new second wakeup time to said next first communications wakeup time when said first communications wakeup time is earlier than a next second wakeup time." The examiner respectfully disagrees.

The dictionary discloses the definition of the word **synchronizing** as "*to go on, move, operate, work, etc., at the same rate*".

The passage cited by the examiner and then presented by the *applicant* "*the wake up signals from the clock domain blocks and the software wake up block 335 may be combined via an OR gate 340....assuring that if one or more of the clock domain blocks (or mobile telephone) is waking up, then the VCDG 305 will also be woken up*" [0037]

Leclercq clearly discloses a method wherein a second separate wake up time for block VCDG 305 is implemented **based** on the first wake up time of one or more domain blocks. Clearly the two separate wake up times are "synchronized" based on the passage recited by Leclercq.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-16 and 22-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Leclercq (US 2004/0248624).

Regarding claim 1, Leclercq teaches a method for synchronizing a wakeup schedule for a first communications module and a wakeup schedule for a second communications module in a wireless mobile unit (figure 2, device 205 & figure 3, elements 310, 315 etc...), said method comprising: determining a next first communications wakeup time; and synchronizing a new second wakeup time to said next first communications wakeup time when said next first communications wakeup time is earlier than a next second wakeup time (¶ 0031, 0034 and 0037).

Regarding claim 2, Leclercq teaches a method for synchronizing a wakeup schedule for a UWB module and a wakeup schedule for a communications module in a wireless mobile unit (figure 2, device 205 & figure 3, elements 310, 315 etc...), said method comprising: determining a next communications wakeup time; and synchronizing a new Ultra-wideband (UWB) wakeup time to said next communications

wakeup time when said next communications wakeup time is earlier than a next UWB wakeup time (§§ 0031, 0034 and 0037).

Regarding claim 3, Leclercq teaches a step of establishing said next UWB wakeup time after said determining step and before said synchronizing step (§§ 0037 and 0040).

Regarding claim 4, Leclercq teaches determining a current communications time; and determining a current UWB time (§§ 0037, 0050 and 0052).

Regarding claim 5, Leclercq teaches determining a communications interval, said communications interval equaling said next communications wakeup time less said current communications time (§§ 0037-0040, 0050 and 0052).

Regarding claim 6, Leclercq teaches a step of synchronizing said new UWB wakeup time to said next communications wakeup time when said current UWB time plus said communications interval is less than said next UWB time (§§ 0037-0040, 0050 and 0052).

Regarding claim 7, Leclercq teaches a step of performing a UWB wakeup process and a communications wakeup process substantially at said new UWB wakeup time (§§ 0037-0040, 0050 and 0052).

Regarding claims 8 and 12, Leclercq teaches said performing step comprises a step of powering on said UWB module and said communications module substantially simultaneously so as to reduce said wireless mobile unit's power consumption (§ 0037-0040, 0050 and 0052).

Regarding claim 9, Leclercq teaches a method for synchronizing a wakeup schedule for a UWB module and a wakeup schedule for a communications module in a wireless mobile unit (figure 2, device 205 & figure 3, elements 310, 315 etc...), said method comprising: determining a current communications time and a current UWB time; calculating a communications interval, said communications interval equaling a next communications wakeup time less said current communications time; and synchronizing a new UWB wakeup time to said next communications wakeup time when said current UWB time plus said communications interval is less than a next UWB time (§ 0031, 0034, 0037-0040, 0050 and 0052).

Regarding claim 10, Leclercq teaches establishing said next communications wakeup time prior to said step of calculating said communications time interval; and establishing said next UWB wakeup time prior to said step of synchronizing said new UWB time (§ 0037-0040, 0050 and 0052).

Regarding claim 11, Leclercq teaches a step of performing a UWB wakeup process and a communications wakeup process substantially at said new UWB wakeup time (¶¶ 0037-0040, 0050 and 0052).

Regarding claims 13 and 24, Leclercq teaches said wireless mobile unit comprises a UWB-enabled communications mobile phone (figures 2 and 3).

Regarding claim 14, Leclercq teaches a wireless mobile unit comprising: a communications module configured to perform a communications wakeup process at a next communications wakeup time (figure 2, device 205 & figure 3, elements 310, 315 etc...); and a processor configured to synchronize a new UWB wakeup time to said next communications wakeup time when said next communications wakeup time is earlier than a next UWB wakeup time (¶¶ 0031, 0034 and 0037).

Regarding claim 15, Leclercq teaches a UWB module configured to perform a UWB wakeup process (¶¶ 0037-0040).

Regarding claim 16, Leclercq teaches said UWB module is configured to perform said UWB wakeup process at said new UWB wakeup time when said next communications wakeup time is earlier than said next UWB wakeup time (¶¶ 0037-0040, 0050 and 0052).

Regarding claim 22, Leclercq teaches said communications module performs said communications wakeup process and said UWB module performs said UWB wakeup process substantially at said new UWB wakeup time (§§ 0037-0040, 0050 and 0052).

Regarding claim 23, Leclercq teaches said communications module and said UWB module are configured to power on substantially simultaneously so as to reduce said wireless mobile unit's power consumption (§§ 0037-0040, 0050 and 0052).

Regarding claim 25, Leclercq teaches a wireless unit comprising: a means for performing a communications wakeup process at a next communications wakeup time (figure 2, device 205 & figure 3, elements 310, 315 etc...); and a means for synchronizing a new UWB wakeup time to said next communications wakeup time when said next communications wakeup time is earlier than a next UWB wakeup time (§§ 0031, 0034 and 0037).

Regarding claim 26, Leclercq teaches a wireless mobile unit (figure 2, device 205 & figure 3, elements 310, 315 etc...) comprising: a memory means; and a means for performing a communications wakeup process at a next communications wakeup time and for synchronizing a new UWB wakeup time to said next communications wakeup time when said next communications wakeup time is earlier than a next UWB wakeup time (§§ 0031, 0034 and 0037).

Regarding claim 27, Leclercq teaches a digital signals processing apparatus (figure 2, device 205 & figure 3, elements 310, 315 etc...), comprising: a memory means for storing digital data; and a digital signal processing means for interpreting digital signals to synchronize a wakeup schedule for a UWB module and a wakeup schedule for a communications module in a wireless mobile unit by: determining a next communications wakeup time; and synchronizing a new UWB wakeup time to said next communications wakeup time when said next communications wakeup time is earlier than a next UWB wakeup time (§§ 0031, 0034 and 0037).

Regarding claims 28, Leclercq teaches said digital signal processing means further interpreting digital signals to establish said next UWB wakeup time after said determining a next communications wakeup time and before said synchronizing a new UWB wakeup time (§§ 0037-0040, 0050 and 0052).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2618

5. Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leclercq (US 2002/0248624) in view of Lee (US 6,741,836).

6.

Regarding claim 17, Leclercq teaches a wireless multimode wireless device but fails to specifically disclose said communications module comprises a communications transmitter/receiver and a communications antenna, said communications transmitter/receiver and said communications antenna being configured to receive a pilot signal from a base station so as to synchronize said communications module with said base station. In related art, Lee discloses a dual mode, CDMA/Bluetooth wireless device with power saving clock synchronizations and more specifically, a communications module comprises a communications transmitter/receiver and a communications antenna, said communications transmitter/receiver and said communications antenna being configured to receive a pilot signal from a base station so as to synchronize said communications module with said base station (Lee, column 6, lines 27-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Lee's teachings with Leclercq already existing multimode wireless device in order to provide Leclercq with continuous uninterrupted service.

Regarding claim 18, Leclercq as modified by Lee disclose said communications module is further configured to derive a current communications time from said pilot signal (Lee, column 6, lines 27-54 & column 10, lines 32-49).

Regarding claim 19, Leclercq teaches said UWB module comprises a clock, said clock being configured to track a current UWB time (§§ 0037-0040, 0050 and 0052).

Regarding claim 20, Leclercq teaches said processor is further configured to calculate a communications interval, said communications interval equaling said next communications wakeup time less said current communications time (§§ 0037-0040, 0050 and 0052).

Regarding claim 21, Leclercq teaches said processor is further configured to synchronize said new UWB wakeup time to said next communications wakeup time when said current UWB time plus said communications interval is less than said next UWB time (§§ 0037-0040, 0050 and 0052).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2618

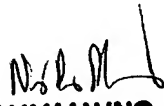
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chan whose telephone number is (571) 272-0570. The examiner can normally be reached on Mon - Fri (9AM - 5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Richard Chan
Art Division 2618
8/23/07


NAY MAUNG
SUPERVISORY PATENT EXAMINER